

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	56533	polymer with support	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/19 15:10
L2	17753	nitrophenol	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/19 15:10
L3	987	1 and 2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/19 15:11
L4	29707	amide with link\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/19 15:11
L5	266	3 and 4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/19 15:12
L6	123	1 same 4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/19 15:21
L7	12	5 and 6	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/19 15:12
L8	10	1 same 2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/19 15:21
L9	6	8 not 7	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/19 15:21
L10	823	(525/374).CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2005/12/19 15:27

L11	13	10 and 2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/19 15:28
-----	----	----------	---	----	----	------------------



# ***STIC Search Report***

**EIC 1700**

**STIC Database Tracking Number: 174235**

**TO: bernard lipman  
Location: REM 10A15  
Art Unit : 1713  
December 19, 2005**

**Case Serial Number: 10/694353**

**From: Kathleen Fuller  
Location: EIC 1700  
REMSEN 4B28  
Phone: 571/272-2505  
Kathleen.Fuller@uspto.gov**

## **Search Notes**



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader  
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

- I am an examiner in Workgroup:  Example: 1713
- Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Access DB# 174235**SEARCH REQUEST FORM**

Scientific and Technical Information Center

Requester's Full Name: Bernard Lipman Examiner #: 60676 Date: 12/14/05  
Art Unit: 1713 Phone Number: 302-1105 Serial Number: 10/694353  
Mail Box and Bldg/Room Location: Rm 1045 Results Format Preferred (circle): PAPER DISK E-MAIL

**If more than one search is submitted, please prioritize searches in order of need.**

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

\*\*\*\*\*  
**STAFF USE ONLY**

	Type of Search	Vendors and cost where applicable
Searcher: <u>A. Fuller</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>2</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>12/19/05</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>40</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>36</u>	Other _____	Other (specify) _____

PTO-1590 (8-01) subseq

=> FILE REG

FILE 'REGISTRY' ENTERED AT 11:44:10 ON 19 DEC 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 18 DEC 2005 HIGHEST RN 870123-57-2

DICTIONARY FILE UPDATES: 18 DEC 2005 HIGHEST RN 870123-57-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 11:44:14 ON 19 DEC 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 19 Dec 2005 VOL 143 ISS 26

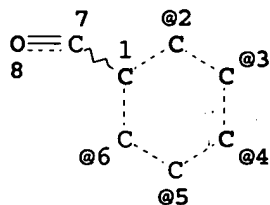
FILE LAST UPDATED: 18 Dec 2005 (20051218/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE  
L70

STR



NO2 @10

*5,796 structures from query*

OH @9

VPA 9-2/3/4/5/6 U

VPA 10-2/3/4/5/6 U

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

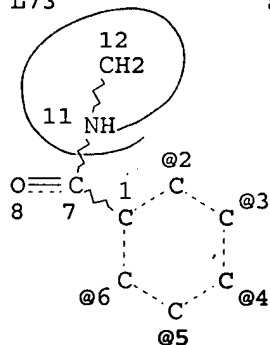
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L72 5796 SEA FILE=REGISTRY SSS FUL L70

L73 STR



NO2 @10

*subset search*

*348 structures*

OH @9

VPA 9-2/3/4/5/6 U

VPA 10-2/3/4/5/6 U

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L75 348 SEA FILE=REGISTRY SUB=L72 SSS FUL L73  
L76 1 SEA FILE=REGISTRY ABB=ON L75 AND PMS/CI  
L77 38 SEA FILE=REGISTRY ABB=ON L72 AND PMS/CI  
L78 1 SEA FILE=HCAPLUS ABB=ON L76  
L79 200 SEA FILE=HCAPLUS ABB=ON L75  
L80 6 SEA FILE=HCAPLUS ABB=ON L79 AND SUPPORT?  
L81 6181 SEA FILE=HCAPLUS ABB=ON L72  
L83 188 SEA FILE=HCAPLUS ABB=ON L81 AND SUPPORT?  
L85 14 SEA FILE=HCAPLUS ABB=ON L83 AND (POLYMER? OR PLASTIC?)/SC,SX  
L86 0 SEA FILE=HCAPLUS ABB=ON L80 AND (POLYMER? OR PLASTIC?)/SC,SX  
L87 14 SEA FILE=HCAPLUS ABB=ON L85 OR L86  
L88 23 SEA FILE=HCAPLUS ABB=ON L77  
L89 0 SEA FILE=HCAPLUS ABB=ON L88 AND SUPPORT?  
L90 1 SEA FILE=HCAPLUS ABB=ON L88 AND NITROPHENOL?  
L91 16 SEA FILE=HCAPLUS ABB=ON L78 OR L87 OR L86 OR L89 OR L90

=&gt; D L91 BIB ABS IND HITSTR 1-16

L91 ANSWER 1 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:976997 HCAPLUS

DN 143:267401

TI Metal complexes for use in olefin metathesis and atom group transfer reactions

IN Verpoort, Francis Walter Cornelius; Drozdak, Renata Anna; Ledoux, Nele; Allaert, Bart Filip

PA Universiteit Gent, Belg.

SO PCT Int. Appl., 116 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005082819	A2	20050909	WO 2005-BE30	20050225
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	EP 1577282	A2	20050921	EP 2005-447043	20050225
	EP 1577282	A3	20051109		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU			

PRAI US 2004-547953P P 20040226

AB Improved catalysts useful in a number of organic synthesis reactions such as olefin metathesis and atom or group transfer reactions are made by bringing into contact a multi-coordinated metal complex comprising a multidentate Schiff base ligand, and one or more other ligands, with an acid under conditions such that the acid is able to at least partly cleave



a bond between the metal and the multidentate Schiff base ligand of the metal complex, optionally through intermediate protonation of the Schiff base ligand.

IC ICM C07C006-00

ICS C07F019-00; C07F015-00

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 29, 67

ST Schiff base metal complex olefin metathesis atom transfer reaction

IT Arylation catalysts

(Heck; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)

IT Cyclization

(Robinson annulation, catalyst; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)

IT Transition metal complexes

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(Schiff base; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)

IT Cycloaddition reaction catalysts

(aziridination; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)

IT Dimerization catalysts

(codimerization catalysts; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)

IT Amidation catalysts

(hydroamidation; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)

IT Amination catalysts

(hydroamination; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)

IT Polymerization catalysts

(metathetic, ring-opening; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)

IT Aldol condensation catalysts

Alkylation catalysts

Aminolysis catalysts

Cycloaddition reaction catalysts

Cyclopropanation catalysts

Diels-Alder reaction catalysts

Epoxidation catalysts

Grignard reaction catalysts

Hydroboration catalysts

Hydrocyanation catalysts

Hydrogenation catalysts

Hydrosilylation catalysts

Hydroxylation catalysts

Michael reaction catalysts

Oxidation catalysts

Reduction catalysts

Vinylation catalysts

(production of Schiff base transition metal complexes for metathesis

- ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)
- IT Schiff bases  
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)  
(ruthenium complexes; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)
- IT Polymerization catalysts  
(supported; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)
- IT Schiff bases  
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)  
(transition metal complexes; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)
- IT 7647-01-0, Hydrochloric acid, uses  
RL: CAT (Catalyst use); USES (Uses)  
(activator; metathesis ring-opening polymerization of cyclic olefins using acid activation of Schiff base ruthenium complexes)
- IT 10035-10-6, Bromohydric acid, uses  
RL: CAT (Catalyst use); USES (Uses)  
(activator; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)
- IT 40356-67-0, Vinylnorbornene  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(chain transfer agent; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)
- IT 159733-69-4P, N-(4-Bromo-2,6-dimethylphenyl)-(2-hydroxy-1-phenyl)methaneimine 187605-57-8P 210096-15-4P, N-(2,6-Diisopropylphenyl)-(2-hydroxy-3-tert-butyl-1-phenyl)methaneimine 211686-77-0P, N-(4-Bromo-2,6-dimethylphenyl)-(2-hydroxy-5-nitro-1-phenyl)methaneimine 850200-37-2P, N-(4-Bromo-2,6-dimethylphenyl)-(2-hydroxy-3-tert-butyl-1-phenyl)methaneimine  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(ligand; production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)
- IT 108793-14-2P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(metathesis acyclic diene metathesis polymerization using acid activation of Schiff base ruthenium complexes)
- IT 25038-78-2P, Polydicyclopentadiene 25267-51-0P 28702-45-6P, Poly(1-octene-1,8-diyl) 68865-44-1P 112983-75-2P, Ethylidenenorbornene homopolymer 134490-17-8P, Ethyltetracyclododecene homopolymer 247579-45-9P 259142-13-7P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(metathesis ring-opening polymerization of cyclic olefins using acid activation of Schiff base ruthenium complexes)
- IT 78-67-1, AIBN  
RL: CAT (Catalyst use); USES (Uses)  
(production of Schiff base transition metal complexes for metathesis ring-opening polymerization catalysts of cyclic olefins and atom group transfer reactions)
- IT 497162-18-2P 541547-97-1P 541547-98-2P 541547-99-3P 541548-00-9P

565230-61-7P 565230-62-8P 565230-63-9P 565230-64-0P 565230-65-1P  
 565230-66-2P 850200-39-4P 850200-40-7P 850200-41-8P 850200-42-9P  
 850200-43-0P 863912-31-6P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);  
 USES (Uses)

(production of Schiff base transition metal complexes for metathesis  
 ring-opening polymerization catalysts of cyclic olefins and atom group  
 transfer reactions)

IT 90-02-8P, preparation 97-51-8P 24544-04-5P,  
 2,6-Diisopropylaniline 24596-19-8P 24623-65-2P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
 (Reactant or reagent)

(starting material; production of Schiff base transition metal complexes  
 for metathesis ring-opening polymerization catalysts of cyclic olefins and  
 atom group transfer reactions)

IT 100-59-4, Phenylmagnesium chloride 121-46-0, Norbornadiene 879-06-1,  
 Pentafluorophenylmagnesium chloride 917-54-4, Methyllithium  
 29965-97-7, Cyclooctadiene 52462-29-0, Tetrachlorobis(p-  
 cymene)diruthenium

RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; production of Schiff base transition metal complexes  
 for metathesis ring-opening polymerization catalysts of cyclic olefins and  
 atom group transfer reactions)

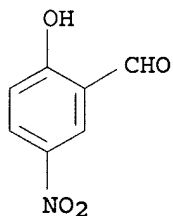
IT 97-51-8P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
 (Reactant or reagent)

(starting material; production of Schiff base transition metal complexes  
 for metathesis ring-opening polymerization catalysts of cyclic olefins and  
 atom group transfer reactions)

RN 97-51-8 HCAPLUS

CN Benzaldehyde, 2-hydroxy-5-nitro- (9CI) (CA INDEX NAME)



L91 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:346922 HCAPLUS

DN 142:411833

TI Schiff base metal complexes for use as catalysts in organic synthesis

IN Verpoort, Francis Walter Cornelius; Opstal, Tom

PA Universiteit Gent, Belg.

SO PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005035121	A2	20050421	WO 2004-BE146	20041015
	WO 2005035121	A3	20050630		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
 SN, TD, TG

PRAI EP 2003-447257 A 20031016  
 US 2003-529010P P 20031212

OS MARPAT 142:411833

AB Schiff base metal complexes that are at least tetra-coordinated are useful as catalysts for ring-opening metathesis polymerization of cycloolefins, atom-transfer radical polymerization of unsatd. compds., cyclopropanation of styrene, oxidative cyclization of 2-aminobenzyl alc. with ketones, vinylation of terminal alkynes with carboxylic acids, and ring-closing metathesis of  $\alpha,\omega$ -dienes. A typical complex was manufactured by adding a solution of thallium ethoxide in THF dropwise to a solution of N-(4-bromo-2,6-dimethylphenyl)-2-hydroxy-1-phenylmethaneimine (I) in THF, stirring 2 h, adding (p-cymene)ruthenium dichloride dimer in THF to a THF solution of the resulting Tl salt of I, stirring 6 h, adding a MeLi solution in ether to an ether solution of the resulting intermediate complex at 0°, and slowly warming to room temperature, and stirring 4 h.

IC ICM B01J031-22

ICS B01J031-02; C07C006-04

CC 35-3 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 23, 24, 25, 29, 67

ST Schiff base transition metal complex catalyst manuf;  
 bromodimethylphenylhydroxy phenylmethaneimine cymenemethylruthenium complex manuf; diene ring closing metathesis catalyst Schiff base complex; alkyne vinylation carboxylic acid catalyst Schiff base complex; aminobenzyl alc oxidative cyclization ketone catalyst Schiff base complex; styrene cyclopropanation catalyst Schiff base complex; atom transfer radical polymn catalyst Schiff base complex; cycloolefin ring opening metathesis polymn catalyst Schiff base complex

IT Coupling reaction catalysts

(Grignard-Wurtz; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT Addition reaction catalysts

(Michael; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT Aldol condensation catalysts

Alkylation catalysts

Aminolysis catalysts

Cyclopropanation catalysts

Diels-Alder reaction catalysts

Dimerization catalysts

Epoxidation catalysts

Hydroboration catalysts

Hydrocyanation catalysts

Hydrogenation catalysts

Hydrosilylation catalysts

Hydroxylation catalysts

Isomerization catalysts

Oxidation catalysts

Silylation catalysts

Vinylation catalysts

(Schiff base metal complexes having tetra- or higher coordination for

- IT use catalysts in organic synthesis)
- IT Transition metal complexes  
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)  
(Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Polyalkenamers  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Schiff bases  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Titanates  
RL: CAT (Catalyst use); USES (Uses)  
(alkoxides, cocatalysts; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Alkynes  
Carboxylic acids, reactions:  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(alkyne-carboxylic acid reaction precursor; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Group IIIA element compounds  
RL: CAT (Catalyst use); USES (Uses)  
(aluminum halides, cocatalysts; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Group VA element compounds  
Halides  
RL: CAT (Catalyst use); USES (Uses)  
(antimony halides, cocatalysts; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Polymerization catalysts  
(atom transfer, radical; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Cycloaddition reaction catalysts  
(aziridination; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Group VA element compounds  
Halides  
RL: CAT (Catalyst use); USES (Uses)  
(bismuth halides, cocatalysts; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Metalation catalysts  
(carbo-; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Zeolite MCM-41  
RL: CAT (Catalyst use); USES (Uses)  
(catalyst support; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Molecular sieves  
(catalyst supports; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Oxides (inorganic), uses  
Polymers, uses  
RL: CAT (Catalyst use); USES (Uses)  
(catalyst supports; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)
- IT Diazo compounds

RL: CAT (Catalyst use); USES (Uses)  
(cocatalysts; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT Metathesis catalysts  
Oxidation catalysts  
(cyclization; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT Reduction catalysts  
(hydride; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT Amidation catalysts  
(hydro-; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT Cyclization catalysts  
(metathesis; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT Polymerization catalysts  
(metathetic, ring-opening; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT Cyclization catalysts  
(oxidative; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT Amination catalysts  
(reductive; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT Amines, uses  
RL: CAT (Catalyst use); USES (Uses)  
(secondary, cocatalysts; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT Transition metal halides  
RL: CAT (Catalyst use); USES (Uses)  
(titanium halides, cocatalysts; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT Metal alkoxides  
RL: CAT (Catalyst use); USES (Uses)  
(titanium, cocatalysts; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT Transition metal halides  
RL: CAT (Catalyst use); USES (Uses)  
(vanadium halides, cocatalysts; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT 123-54-6DP, Acetylacetone, Schiff base derivs., metal complexes  
6337-28-6DP, metal complexes 6337-28-6DP, ruthenium complex  
7439-88-5DP, Iridium, complexes 7439-89-6DP, Iron, complexes  
7439-91-0DP, Lanthanum, complexes 7439-96-5DP, Manganese, complexes  
7439-97-6DP, Mercury, complexes 7439-98-7DP, Molybdenum, complexes  
7440-02-0DP, Nickel, complexes 7440-04-2DP, Osmium, complexes  
7440-05-3DP, Palladium, complexes 7440-06-4DP, Platinum, complexes  
7440-15-5DP, Rhenium, complexes 7440-16-6DP, Rhodium, complexes  
7440-18-8DP, Ruthenium, bis(nitrosalicylidene)ethylenediamine dinuclear complex 7440-22-4DP, Silver, complexes 7440-26-8DP, Technetium, complexes 7440-32-6DP, Titanium, complexes 7440-33-7DP, Tungsten, complexes 7440-43-9DP, Cadmium, complexes 7440-47-3DP, Chromium, complexes 7440-48-4DP, Cobalt, complexes 7440-50-8DP, Copper, complexes 7440-57-5DP, Gold, complexes 7440-62-2DP, Vanadium, complexes 7440-66-6DP, Zinc, complexes 141823-29-2P 406911-90-8P 406911-91-9P 406911-92-0P 541547-97-1P 541547-98-2P 541547-99-3P 541548-00-9P 565230-39-9P 565230-40-2P 594860-25-0DP, oxidized reaction product with toluene and silver tetrafluoroborate 594860-25-0P 620628-41-3P 620628-42-4P 850200-39-4P 850200-40-7P 850200-41-8P

850200-42-9P 850200-43-0P 850200-44-1DP, oxidized reaction product with toluene and silver tetrafluoroborate 850200-44-1P 850200-45-2DP, oxidized reaction product with toluene and silver tetrafluoroborate 850200-45-2P 850200-46-3P 850200-47-4P 850200-48-5P 850200-49-6P 850200-50-9P 850200-51-0P 850200-52-1P 850233-84-0DP, metal complexes

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT 9003-21-8P, Methyl acrylate homopolymer 9003-49-0P, Butyl acrylate homopolymer 9003-53-6P, Polystyrene 9011-14-7P, PMMA 9011-15-8P, Isobutyl methacrylate homopolymer 25038-76-0P, Norbornene homopolymer 25267-51-0P 26935-77-3P, 5-Butylnorbornene homopolymer 26935-79-5P, 5-Hexylnorbornene homopolymer 26937-36-0P, 5-Decylnorbornene homopolymer 28702-45-6P, Poly(1-octene-1,8-diyl) 29036-48-4P, 5-Ethylnorbornene homopolymer 30421-34-2P, 5-Phenylnorbornene homopolymer 30421-42-2P, 5-(Hydroxymethyl)norbornene homopolymer 30975-54-3P, 5-(Chloromethyl)norbornene homopolymer 42813-64-9P, Polynorbornene, sru 61710-95-0P 112983-75-2P, Ethylidenenorbornene homopolymer 127463-08-5P 140448-77-7P, Ethyltetracyclododecene homopolymer 146066-32-2P, 5-(Triethoxysilyl)norbornene homopolymer 150274-86-5P, 5-(3-Cyclohexen-1-yl)-2-norbornene homopolymer 150871-79-7P 197179-02-5P 247579-45-9P 259142-13-7P 259142-18-2P 475466-64-9P 475466-65-0P 475466-66-1P 475466-67-2P

RL: IMF (Industrial manufacture); PREP (Preparation)

(Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT 13141-45-2P

RL: BYP (Byproduct); PREP (Preparation)

(alkyne-carboxylic acid reaction byproduct; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT 64-18-6, Formic acid, reactions 64-19-7, Acetic acid, reactions 536-74-3, Phenylacetylene 871-84-1, 1,7-Octadiyne

RL: RCT (Reactant); RACT (Reactant or reagent)

(alkyne-carboxylic acid reaction precursor; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT 84553-32-2P 113388-42-4P 406911-95-3P 406911-96-4P 406911-97-5P 406911-98-6P 406911-99-7P 406912-00-3P 503298-92-8P

RL: IMF (Industrial manufacture); PREP (Preparation)

(alkyne-carboxylic acid reaction product; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT 75-64-9, tert-Butylamine, uses 109-89-7, Diethylamine, uses 110-89-4, Piperidine, uses 111-92-2, Dibutylamine 121-44-8, Triethylamine, uses

RL: CAT (Catalyst use); USES (Uses)

(atom-transfer radical polymerization cocatalyst; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT 159733-69-4P 187605-57-8P 210096-15-4P 211686-77-0P, N-(4-Bromo-2,6-dimethylphenyl)-1-(2-hydroxy-4-nitrophenyl)methaneimine 850200-37-2P, N-(4-Bromo-2,6-dimethylphenyl)-1-(3-tert-butyl-2-hydroxyphenyl)methaneimine

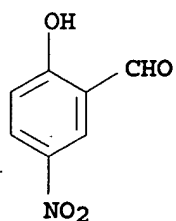
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(catalyst precursor; Schiff base metal complexes having tetra- or higher coordination for use catalysts in organic synthesis)

IT 87-62-7, 2,6-Dimethylphenylamine 88-05-1, 2,4,6-Trimethylaniline

- 90-02-8, Salicylaldehyde, reactions 97-51-8,  
2-Hydroxy-5-nitrobenzaldehyde 100-59-4, Phenylmagnesium chloride  
106-49-0, 4-Methylaniline, reactions 121-46-0D, Norbornadiene, ruthenium  
dinuclear complex 579-66-8, 2,6-Diethylaniline 879-06-1,  
Pentafluorophenylmagnesium chloride 917-54-4, Methyllithium 919-30-2,  
3-Aminopropyltriethoxysilane 5266-85-3, 2-Isopropyl-6-methylaniline  
6310-21-0, 2-tert-Butylaniline 7293-45-0, [1,1':4',1''-Terphenyl]-4-  
amine 7440-18-8D, Ruthenium, norbornadiene dinuclear complex  
13117-94-7, 2-tert-Butyl-6-methylaniline 24544-04-5,  
2,6-Diisopropylaniline 24596-19-8, 4-Bromo-2,6-dimethylaniline  
24623-65-2, 3-tert-Butyl-2-hydroxybenzaldehyde 41674-04-8, Aminobiphenyl  
52462-29-0, (p-Cymene)ruthenium dichloride dimer 62813-37-0, Anthramine  
64849-97-4, Phenanthrenamine 128363-26-8 163704-72-1,  
2,6-Diisopropyl-4-nitroaniline 250220-36-1 850233-85-1,  
10-Nitroanthracenamine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(catalyst precursor; Schiff base metal complexes having tetra- or  
higher coordination for use catalysts in organic synthesis)
- IT 3195-24-2 3710-30-3, 1,7-Octadiene 5309-50-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(diolefin metathesis ring closure precursor; Schiff base metal  
complexes having tetra- or higher coordination for use catalysts in  
organic synthesis)
- IT 110-83-8P, Cyclohexene, preparation 2698-64-8P 21622-00-4P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(diolefin metathesis ring closure product; Schiff base metal complexes  
having tetra- or higher coordination for use catalysts in organic  
synthesis)
- IT 98-86-2, Acetophenone, reactions 108-94-1, Cyclohexanone, reactions  
585-74-0 4894-75-1, 4-Phenylcyclohexanone 5344-90-1, 2-Aminobenzyl  
alcohol  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(ketone-aminobenzyl alc. oxidative cyclization precursor; Schiff base  
metal complexes having tetra- or higher coordination for use catalysts  
in organic synthesis)
- IT 612-96-4P 3295-64-5P 24641-30-3P 417707-75-6P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(ketone-aminobenzyl alc. oxidative cyclization product; Schiff base  
metal complexes having tetra- or higher coordination for use catalysts  
in organic synthesis)
- IT 96-10-6, Diethylaluminum chloride, uses 97-93-8, Triethylaluminum, uses  
2397-67-3, Triisopropylaluminum 18107-18-1, Trimethylsilyldiazomethane  
RL: CAT (Catalyst use); USES (Uses)  
(polymerization cocatalyst; Schiff base metal complexes having tetra- or  
higher coordination for use catalysts in organic synthesis)
- IT 100-42-5, Styrene, reactions 623-73-4, Ethyl diazoacetate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(styrene cyclopropanation precursor; Schiff base metal complexes having  
tetra- or higher coordination for use catalysts in organic synthesis)
- IT 91142-56-2P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(styrene cyclopropanation product; Schiff base metal complexes having  
tetra- or higher coordination for use catalysts in organic synthesis)
- IT 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(catalyst precursor; Schiff base metal complexes having tetra- or  
higher coordination for use catalysts in organic synthesis)
- RN 97-51-8 HCAPLUS  
CN Benzaldehyde, 2-hydroxy-5-nitro- (9CI) (CA INDEX NAME)





- L91 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AN 2005:221677 HCAPLUS  
 DN 143:153795  
 TI Preparation of photoactive copolymers by atom transfer radical polymerization (ATRP)  
 AU de los Santos, Gladys; Elizalde, Luis E.; Castro, Benjamin; Garcia, Aida E.; Medellin, Diana I.  
 CS Centro de Investigacion en Quimica Aplicada, Saltillo, Coahuila, Mex.  
 SO Revista de la Sociedad Quimica de Mexico (2004), 48(4), 332-337  
 CODEN: RSQMAN; ISSN: 0583-7693  
 PB Sociedad Quimica de Mexico  
 DT Journal  
 LA Spanish  
 AB The photochromic monomer N-(2-methacryloxyethyl)-6-nitro-spiro-benzopyran-indoline was prepared and polymerized with Me methacrylate by atom transfer radical polymerization Copolymers with controlled mol. weight (20,000) and narrow polydispersity index (1.19) were obtained. The catalytic system used is bipyridine/CuI complexes and alkyl bromides, i.e., ethyl-2-bromopropionate, 3-bromopropene, and p-toluenesulfonyl chloride as initiator. The copolymers contain 10% of photoactive moieties in the main acrylic chain. Thin films supported on quartz were prepared by spin coating, which develop a deep blue color (580 nm in the absorption spectra) when exposed to UV light.  
 CC 35-4 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 36, 73  
 ST photochromism methacryloxyethyl nitrospiro benzopyranindoline methyl methacrylate copolymer prepn  
 IT Polymerization  
 (atom transfer, radical; preparation of monomer and photochromic copolymers of methacryloxyethyl nitrospiro-benzopyranindoline by ATRP)  
 IT Optical absorption  
 Photochromism  
 Polydispersity  
 (preparation of monomer and photochromic copolymers of methacryloxyethyl nitrospiro-benzopyranindoline by ATRP)  
 IT 98-59-9, p-Toluenesulfonyl chloride 106-95-6, 3-Bromopropene, uses 535-11-5, Ethyl-2-bromopropionate  
 RL: CAT (Catalyst use); USES (Uses)  
 (initiator; preparation of monomer and photochromic copolymers of methacryloxyethyl nitrospiro-benzopyranindoline by ATRP)  
 IT 16111-07-2P 29636-94-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate; preparation of monomer and photochromic copolymers of methacryloxyethyl nitrospiro-benzopyranindoline by ATRP)  
 IT 51816-58-1P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (photochromic polymer; preparation of monomer and photochromic copolymers of

methacryloxyethyl nitrospiro-benzopyranindoline by ATRP)

IT 366-18-7, 2,2'-Bipyridine  
RL: CAT (Catalyst use); USES (Uses)  
(polymerization catalyst ligand; preparation of monomer and photochromic copolymers of methacryloxyethyl nitrospiro-benzopyranindoline by ATRP)

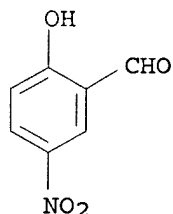
IT 7681-65-4, Cuprous iodide  
RL: CAT (Catalyst use); USES (Uses)  
(preparation of monomer and photochromic copolymers of methacryloxyethyl nitrospiro-benzopyranindoline by ATRP)

IT 97-51-8, 5-Nitrosalicyl aldehyde 920-46-7, Methacryloyl chloride  
1640-39-7, 2,3,3-Trimethylindolenine 162854-32-2, 1-Bromoethanol  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of monomer and photochromic copolymers of methacryloxyethyl nitrospiro-benzopyranindoline by ATRP)

IT 25952-50-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of monomer and photochromic copolymers of methacryloxyethyl nitrospiro-benzopyranindoline by ATRP)

IT 97-51-8, 5-Nitrosalicyl aldehyde  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of monomer and photochromic copolymers of methacryloxyethyl nitrospiro-benzopyranindoline by ATRP)

RN 97-51-8 HCAPLUS  
CN Benzaldehyde, 2-hydroxy-5-nitro- (9CI) (CA INDEX NAME)



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:160886 HCAPLUS

DN 142:240851

TI Four or Five coordinate metal complexes useful in metathesis and other reactions, **supported** catalyst manufacture, and catalyst intermediates

IN Walter, Francis; De Clercq, Bob

PA Belg.

SO U.S. Pat. Appl. Publ., 61 pp., Cont.-in-part of Appl. No. PCT/BE03/00008.  
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005043541	A1	20050224	US 2004-894308	20040719
	EP 1329455	A1	20030723	EP 2002-75250	20020122
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	WO 2003062253	A1	20030731	WO 2003-BE8	20030122

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI EP 2002-75250 A 20020122  
US 2002-349956P P 20020201  
WO 2003-BE8 A2 20030122

OS MARPAT 142:240851

AB This metal complex is useful as catalyst components in metathesis reactions and in reactions involving the transfer of an atom or group to an ethylenically or acetylenically unsatd. compound or another reactive substrate and, with respect to a sub-class, for the polymerization of  $\alpha$ -olefins and optionally conjugated dienes, with high activity at moderate temps. Polymers with very narrow mol. weight distribution by a living reaction are made. Making the metal complexes involves novel intermediates. Derivs. of the metal complexes are suitable for covalent bonding to a carrier, the product of such covalent bonding being useful as a **supported** catalyst for heterogeneous catalytic reactions. It also provides a direct 1-step synthesis of pyrrole, furan and thiophene compds. from diallyl compds.

IC ICM C07F001-00

INCL 548101000; 556032000

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 29

ST atom transfer radical polymn catalyst metal carbene complex; ruthenium carbene complex catalyst olefin metathesis; metal carbene metathesis catalyst manuf

IT Polymerization

(atom transfer, radical; metal carbene complexes useful in metathesis and other reactions)

IT Zeolite MCM-41

RL: CAT (Catalyst use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)

(catalyst **support**; metal carbene complexes useful in metathesis and other reactions)

IT Polymerization

(living; metal carbene complexes useful in metathesis and other reactions)

IT Cyclization catalysts

Metathesis catalysts

Vinylation

(metal carbene complexes useful in metathesis and other reactions)

IT Polyalkenamers

RL: IMF (Industrial manufacture); PREP (Preparation)

(metal carbene complexes useful in metathesis and other reactions)

IT Polymerization catalysts

(metathetic; metal carbene complexes useful in metathesis and other reactions)

IT Polyoxyalkylenes, preparation

RL: IMF (Industrial manufacture); PREP (Preparation)

(norbornene compound, polymer; metal carbene complexes useful in metathesis and other reactions)

IT Polymerization catalysts

(ring-opening; metal carbene complexes useful in metathesis and other

reactions)

IT 1314-23-4, Zirconia, uses 7631-86-9, Silica, uses  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalyst support; metal carbene complexes useful in  
 metathesis and other reactions)

IT 74-89-5, Methylamine, reactions 24596-19-8, 2,6-Dimethyl-4-bromoaniline  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (ligand precursor; metal carbene complexes useful in metathesis and  
 other reactions)

IT 478068-50-7 478068-52-9 478068-54-1 478068-56-3 478068-58-5  
 478068-60-9 478068-61-0 478068-62-1 478068-63-2 478068-64-3  
 478068-65-4 478068-66-5 478068-67-6 478068-68-7 478068-69-8  
 478068-70-1 478068-71-2 478068-72-3 565230-72-0 565230-74-2  
 565230-76-4 565230-78-6 565230-80-0 565230-81-1 565230-82-2  
 565230-83-3 565230-84-4 565230-85-5 565230-86-6 565230-87-7  
 565230-88-8 565230-89-9 565230-90-2 565230-91-3 565230-92-4  
 RL: CAT (Catalyst use); USES (Uses)  
 (metal carbene complexes useful in metathesis and other reactions)

IT 201166-03-2P 211686-90-7P 211686-91-8P 211686-93-0P 216525-22-3P  
 454457-98-8P 454457-99-9P 454458-00-5P 454458-01-6P 454458-02-7P  
 454458-03-8P 462092-87-1P 462092-88-2P 462092-89-3P 462092-90-6P  
 475293-11-9P 475293-13-1P 475293-14-2P 565230-70-8P 570432-35-8DP,  
 reaction product with Zeolite MCM-41 570432-37-0DP, reaction product  
 with Zeolite MCM-41  
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);  
 USES (Uses)  
 (metal carbene complexes useful in metathesis and other reactions)

IT 570432-35-8P 570432-37-0P  
 RL: CAT (Catalyst use); IMF (Industrial manufacture); RCT (Reactant); PREP  
 (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (metal carbene complexes useful in metathesis and other reactions)

IT 498-66-8DP, Norbornene, polyethylene glycol derivs., polymers 592-41-6P,  
 1-Hexene, preparation 1566-65-0P 1566-67-2P 1708-29-8P 2206-94-2P  
 2698-64-8P 9003-21-8P, Methyl acrylate polymer 9003-49-0P, Butyl  
 acrylate polymer 9003-53-6P, Polystyrene 9011-14-7P, Methyl  
 methacrylate polymer 9011-15-8P, Isobutyl methacrylate polymer  
 21622-00-4P 25014-41-9P 25038-76-0P, Norbornene homopolymer  
 25038-78-2P 25103-85-9P 25267-51-0P 25322-68-3DP, Polyethylene  
 glycol, norbornene compound, polymer 26935-77-3P, 5-Butyl-2-norbornene  
 homopolymer 26935-79-5P, 5-Hexyl-2-norbornene homopolymer 26937-36-0P,  
 5-Decyl-2-norbornene homopolymer 27233-87-0P, Methyl acrylate-methyl  
 methacrylate-styrene copolymer 28702-43-4P, Poly(1-pentene-1,5-diyl)  
 28702-45-6P, Poly(1-octene-1,8-diyl) 30421-34-2P, 5-Phenyl-2-norbornene  
 homopolymer 30421-42-2P, 5-Hydroxymethyl-2-norbornene homopolymer  
 30604-01-4P, 5-Vinyl-2-norbornene homopolymer 30811-49-5P,  
 5-Cyano-2-norbornene homopolymer 30975-54-3P 34088-86-3P  
 42813-64-9P, Polynorbornene, sru 50966-72-8P 51252-33-6P 51297-15-5P  
 61710-95-0P 63468-63-3P 66183-80-0P 71194-17-7P 74160-66-0P  
 84553-32-2P 112983-75-2P, 5-Ethylidene-2-norbornene homopolymer  
 113388-42-4P 127463-08-5P 136909-71-2P 140448-77-7P,  
 Ethyltetracyclododecene homopolymer 145381-23-3P 146066-32-2P,  
 5-Triethoxysilyl-2-norbornene homopolymer 150871-79-7P 167412-52-4P  
 219863-76-0P 247579-45-9P 259142-13-7P 259142-18-2P 406911-89-5P  
 406911-95-3P 406911-96-4P 406911-97-5P 406911-98-6P 406911-99-7P  
 406912-00-3P 475466-65-0P 475466-66-1P 475466-67-2P 475466-68-3P  
 503298-92-8P 565230-93-5P 565230-94-6P 565230-95-7P 565471-36-5P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (metal carbene complexes useful in metathesis and other reactions)

IT 3117-65-5P 35082-69-0P 56900-13-1P 159733-69-4P 187605-57-8P  
 210882-43-2P 211686-77-0P 215367-19-4P 406911-90-8P 406911-92-0P

565230-39-9P 565230-40-2P 565230-41-3P 565230-42-4P 565230-43-5P  
 565230-44-6P 565230-45-7P 565230-46-8P 565230-47-9P 565230-48-0P  
 565230-49-1P 565230-50-4P 565230-51-5P 565230-52-6P 565230-53-7P  
 565230-54-8P 565230-55-9P 565230-56-0P 565230-57-1P 565230-58-2P  
 565230-59-3P 565230-60-6P 565230-61-7P 565230-62-8P 565230-63-9P  
 565230-64-0P 565230-65-1P 565230-66-2P 570432-36-9P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(metal carbene complexes useful in metathesis and other reactions)

IT 64-18-6, Formic acid, reactions 64-19-7, Acetic acid, reactions  
 78-70-6, Linalool 90-02-8, Salicyl aldehyde, reactions 97-51-8  
 106-95-6, Allylbromide, reactions 131-17-9, Diallyl phthalate  
 536-74-3, Phenylacetylene 557-40-4, Diallyl ether 871-84-1,  
 1,7-Octadiyne 917-92-0, tert-Butylacetylene 919-30-2,  
 3-Triethoxysilylpropylamine 2622-14-2, Tricyclohexylphosphine  
 3195-24-2, Diethyldiallyl malonate 3710-30-3, 1,7-Octadiene 3923-52-2  
 4162-61-2 5309-50-2, 4,4-Dicarbethoxy-2-methyl-1,6-heptadiene  
 5680-79-5 6147-66-6, Diallylamine hydrochloride 20398-06-5, Thallium  
 ethoxide 24544-04-5, 2,6-Diisopropylaniline 52462-29-0,  
 Tetrachlorobis(p-cymene)diruthenium 132933-28-9 245679-18-9  
 340810-49-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(metal carbene complexes useful in metathesis and other reactions)

IT 26532-95-6, 11-Tetradecenyl acetate 33956-49-9 50933-33-0 62706-17-6

RL: TEM (Technical or engineered material use); USES (Uses)

(metal carbene complexes useful in metathesis and other reactions)

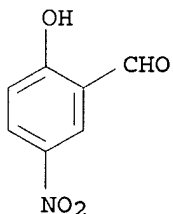
IT 97-51-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(metal carbene complexes useful in metathesis and other reactions)

RN 97-51-8 HCAPLUS

CN Benzaldehyde, 2-hydroxy-5-nitro- (9CI) (CA INDEX NAME)



L91 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:372912 HCAPLUS

DN 140:375694

TI Synthesis and use of nitrophenol resins

IN Chang, Young-tae; Lee, Jaw Wook

PA New York University, USA

SO U.S. Pat. Appl. Publ., 21 pp.

CODEN: USXXCO

DT Patent

LA English

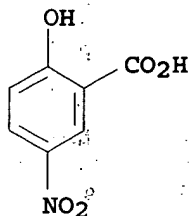
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004087726	A1	20040506	US 2003-694353	20031028
PRAI	US 2002-421568P	P	20021028		
OS	MARPAT 140:375694				

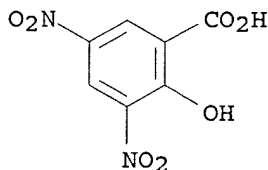
*applicant*

- AB Nitrophenol resins are based upon various support materials and prepared by amide bond formation between a hydroxy-containing nitrobenzoic acid and an aminoalkyl polymer support. Thus, reacting an aminopolystyrene resin in DMF with 4-hydroxy-3-nitrobenzoic acid in the presence of 1-hydroxybenzotriazole 1,3-diisopropylcarbodiimide gave a nitrophenol resin.
- IC ICM C08F008-00
- INCL 525326100; 525328200; 525359400
- CC 35-7 (Chemistry of Synthetic High Polymers)
- ST aminoalkyl polymer support amidation nitrophenol resin manuf
- IT Silica gel, preparation  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(amino group-containing, for support; synthesis and use of nitrophenol resins in solid phase synthesis)
- IT Solid state reaction  
(synthesis and use of nitrophenol resins in solid phase synthesis)
- IT 693-13-0, 1,3-Diisopropylcarbodiimide  
RL: CAT (Catalyst use); USES (Uses)  
(synthesis and use of nitrophenol resins in solid phase synthesis)
- IT 495-69-2P 7506-50-5P, N-Benzyl-2-chlorobenzamide 35854-47-8P, N-(2-Pyridinylmethyl)benzamide 52532-96-4P 82082-47-1P 92244-99-0P 121768-38-5P 157313-27-4P, N-Pyridin-2-ylmethylpropionamide 183585-89-9P 331255-35-7P 348156-16-1P 349417-27-2P 409087-96-3P 473254-12-5P 551914-97-7P, 4-Chloro-N-pyridin-2-ylmethylbutyramide  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(synthesis and use of nitrophenol resins in solid phase synthesis)
- IT 79-03-8DP, Propionyl chloride, reaction products with nitrophenol resins 96-97-9DP, 5-Nitrosalicylic acid, reaction products with amino polymers 96-99-1DP, 4-Chloro-3-nitrobenzoic acid, reaction products with amino polymers, hydrolyzed products 98-59-9DP, p-Toluenesulfonyl chloride, reaction products with nitrophenol resins 98-88-4DP, Benzoyl chloride, reaction products with nitrophenol resins 103-80-0DP, Phenylacetyl chloride, reaction products with nitrophenol resins 104-97-2DP, 3-Cyclopentylpropionyl chloride, reaction products with nitrophenol resins 108-12-3DP, 3-Methylbutyryl chloride, reaction products with nitrophenol resins 110-89-4DP, Piperidine, reaction products with modified nitrophenol resins 122-01-0DP, 4-Chlorobenzoyl chloride, reaction products with nitrophenol resins 142-61-0DP, Hexanoyl chloride, reaction products with nitrophenol resins 459-04-1DP, 4-Fluorophenylacetyl chloride, reaction products with nitrophenol resins 609-99-4DP, 3,5-Dinitrosalicylic acid, reaction products with amino polymers 616-82-0DP, 4-Hydroxy-3-nitrobenzoic acid, reaction products with amino polymers 638-29-9DP, Pentanoyl chloride, reaction products with nitrophenol resins 645-45-4DP, 3-Phenylpropionyl chloride, reaction products with nitrophenol resins 919-30-2DP, Aminopropyltriethoxysilane, reaction products with silica gel 2094-72-6DP, Adamantane-1-carbonyl chloride, reaction products with nitrophenol resins 4635-59-0DP, 4-Chlorobutyryl chloride, reaction products with nitrophenol resins 4693-91-8DP, 4-Methoxyphenylacetyl chloride, reaction products with nitrophenol resins 9003-53-6DP, Polystyrene, amino-, reaction products with hydroxynitrobenzoic acid 17766-28-8DP, 1-Cyclohexylpiperazine, reaction products with modified nitrophenol resins 25026-34-0DP, 4-Chlorophenylacetyl chloride, reaction products with nitrophenol resins 25154-85-2DP, MP resin, amino-, reaction products with hydroxynitrobenzoic acid 34803-66-2DP, 2-Pyridylpiperazine, reaction products with modified nitrophenol resins  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(synthesis and use of nitrophenol resins in solid phase synthesis)

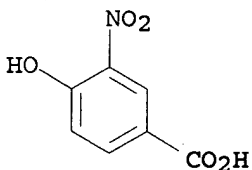
IT 56-40-6, Glycine, reactions 3731-51-9, 2-(Aminomethyl)pyridine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(synthesis and use of nitrophenol resins in solid phase synthesis)  
IT 96-97-9DP, 5-Nitrosalicylic acid, reaction products with amino  
polymers 609-99-4DP, 3,5-Dinitrosalicylic acid, reaction  
products with amino polymers 616-82-0DP, 4-Hydroxy-3-  
nitrobenzoic acid, reaction products with amino polymers  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(synthesis and use of nitrophenol resins in solid phase synthesis)  
RN 96-97-9 HCAPLUS  
CN Benzoic acid, 2-hydroxy-5-nitro- (9CI) (CA INDEX NAME)



RN 609-99-4 HCAPLUS  
CN Benzoic acid, 2-hydroxy-3,5-dinitro- (9CI) (CA INDEX NAME)



RN 616-82-0 HCAPLUS  
CN Benzoic acid, 4-hydroxy-3-nitro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L91 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:591194 HCAPLUS  
DN 139:150075  
TI Metal carbene catalysts used in olefin metathesis, atom/group transfer  
radical polymerization, addition reaction and vinylation  
IN Verpoort, Francis Walter Cornelius; De Clercq, Bob  
PA Universiteit Gent, Belg.  
SO PCT Int. Appl., 92 pp.  
CODEN: PIXXD2  
DT Patent  
LA English

## FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003062253	A1	20030731	WO 2003-BE8	20030122
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1329455	A1	20030723	EP 2002-75250	20020122
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	CA 2473029	AA	20030731	CA 2003-2473029	20030122
	EP 1468004	A1	20041020	EP 2003-731638	20030122
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	JP 2005515260	T2	20050526	JP 2003-562130	20030122
	US 2005043541	A1	20050224	US 2004-894308	20040719
PRAI	EP 2002-75250	A	20020122		
	US 2002-349956P	P	20020201		
	WO 2003-BE8	W	20030122		
OS	MARPAT 139:150075				
AB	A series of five-coordinated ruthenium carbene complexes with multidentate, steric hindered ligands are synthesized and used as catalyst components in olefin metathesis reactions, atom or group transfer radical polymerization, addition reactions, vinylation reactions. The catalyst system can also be used for polymerization of $\alpha$ -olefins, and optionally conjugated dienes, with high activity at moderate temps. The obtained polymers have extremely narrow mol. weight distribution by means of a living polymerization reaction. The synthetic methods for making the metal complexes and the novel intermediates are described. The metal carbene complexes are suitable for covalent bonding to a carrier, the product of such covalent bonding being useful as a supported catalyst for heterogeneous catalytic reactions. The catalysts can be used for direct one-step synthesis of pyrrole, furan, thiophene compds. and other biol. active compds. from diallyl compds.				
IC	ICM C07F019-00				
	ICS C07F015-00; C08G061-08; C07C006-04; C08F004-00; C08F002-38; B01J031-28; C07F009-40; C07F009-572				
CC	35-3 (Chemistry of Synthetic High Polymers)				
	Section cross-reference(s): 29				
ST	atom transfer radical polymn catalyst metal carbene complex; ruthenium carbene complex catalyst olefin metathesis; metal carbene metathesis catalyst manuf				
IT	Polymerization				
	(atom transfer, radical; metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylation)				
IT	Zeolite MCM-41				
	RL: CAT (Catalyst use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)				
	(catalyst support; metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylation)				
IT	Polymerization				



- (living; metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylation)
- IT Cyclization catalysts  
Metathesis catalysts  
Vinylolation  
(metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylolation)
- IT Polyalkenamers  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylolation)
- IT Polymerization catalysts  
(metathetic; metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylolation)
- IT Polyoxyalkylenes, preparation  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(norbornene compound, polymer; metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylolation)
- IT Polymerization catalysts  
(ring-opening; metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylolation)
- IT 406911-90-8P 406911-92-0P 565230-39-9P 565230-40-2P 565230-41-3P  
565230-42-4P 565230-43-5P 565230-44-6P 565230-45-7P 565230-46-8P  
565230-47-9P 565230-48-0P 565230-49-1P 565230-50-4P 565230-51-5P  
565230-52-6P 565230-53-7P 565230-54-8P 565230-55-9P 565230-56-0P  
565230-57-1P 565230-58-2P 565230-59-3P 565230-60-6P 565230-61-7P  
565230-62-8P 565230-63-9P 565230-64-0P 565230-65-1P 565230-66-2P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(catalyst precursor; manufacture of metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylolation)
- IT 1314-23-4, Zirconia, uses 7631-86-9, Silica, uses  
RL: CAT (Catalyst use); USES (Uses)  
(catalyst support; metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylolation)
- IT 90-02-8, Salicyl aldehyde, reactions 3923-52-2 20398-06-5, Thallium  
ethoxide 24544-04-5, 2,6-Diisopropylaniline 340810-49-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(for manufacture of metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylolation)
- IT 3117-65-5P 35082-69-0P 159733-69-4P 187605-57-8P 210882-43-2P  
211686-77-0P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(ligand precursor; for manufacture of metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylolation)
- IT 74-89-5, Methylamine, reactions 97-51-8 24596-19-8,  
2,6-Dimethyl-4-bromoaniline  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(ligand precursor; for manufacture of metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylolation)
- IT 478068-50-7 478068-52-9 478068-54-1 478068-56-3 478068-58-5  
478068-60-9 478068-61-0 478068-62-1 478068-63-2 478068-64-3  
478068-65-4 478068-66-5 478068-67-6 478068-68-7 478068-69-8  
478068-70-1 478068-71-2 478068-72-3 565230-72-0 565230-74-2

565230-76-4 565230-78-6 565230-80-0 565230-81-1 565230-82-2  
 565230-83-3 565230-84-4 565230-85-5 565230-86-6 565230-87-7  
 565230-88-8 565230-89-9 565230-90-2 565230-91-3 565230-92-4  
 RL: CAT (Catalyst use); USES (Uses)  
 (manufacture of metal carbene complexes for use in olefin metathesis,  
 atom/group transfer radical polymerization, addition reaction and vinylation)  
 IT 201166-03-2P 211686-90-7P 211686-91-8P 211686-93-0P 454457-98-8P  
 454457-99-9P 454458-00-5P 454458-01-6P 454458-02-7P 454458-03-8P  
 462092-88-2P 462092-89-3P 462092-90-6P 475293-11-9P 475293-13-1P  
 475293-14-2P 565230-70-8P  
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);  
 USES (Uses)  
 (manufacture of metal carbene complexes for use in olefin metathesis,  
 atom/group transfer radical polymerization, addition reaction and vinylation)  
 IT 145381-23-3P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (manufacture of metal carbene complexes for use in olefin metathesis,  
 atom/group transfer radical polymerization, addition reaction and vinylation)  
 IT 52462-29-0, Tetrachlorobis(p-cymene)diruthenium 245679-18-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (manufacture of metal carbene complexes for use in olefin metathesis,  
 atom/group transfer radical polymerization, addition reaction and vinylation)  
 IT 216525-22-3P 462092-87-1P 570432-35-8DP, reaction product with Zeolite  
 MCM-41 570432-37-0DP, reaction product with Zeolite MCM-41  
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);  
 USES (Uses)  
 (metal carbene complexes for use in olefin metathesis, atom/group  
 transfer radical polymerization, addition reaction and vinylation)  
 IT 570432-35-8P 570432-37-0P  
 RL: CAT (Catalyst use); IMF (Industrial manufacture); RCT (Reactant); PREP  
 (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (metal carbene complexes for use in olefin metathesis, atom/group  
 transfer radical polymerization, addition reaction and vinylation)  
 IT 498-66-8DP, Norbornene, polyethylene glycol derivs., polymers 592-41-6P,  
 1-Hexene, preparation 1566-65-0P 1566-67-2P 1708-29-8P 2206-94-2P  
 2698-64-8P 9003-21-8P, Methyl acrylate polymer 9003-49-0P, Butyl  
 acrylate polymer 9003-53-6P, Polystyrene 9011-14-7P, Methyl  
 methacrylate polymer 9011-15-8P, Isobutyl methacrylate polymer  
 21622-00-4P 25014-41-9P 25038-76-0P, Norbornene homopolymer  
 25038-78-2P 25103-85-9P, Cyclopentene homopolymer 25267-51-0P,  
 Cyclooctene homopolymer 25322-68-3DP, Polyethylene glycol, norbornene  
 compound, polymer 26935-77-3P, 5-Butyl-2-norbornene homopolymer  
 26935-79-5P, 5-Hexyl-2-norbornene homopolymer 26937-36-0P,  
 5-Decyl-2-norbornene homopolymer 27233-87-0P, Methyl acrylate-methyl  
 methacrylate-styrene copolymer 28702-43-4P, Poly(1-pentene-1,5-diyl)  
 28702-45-6P, Cyclooctene homopolymer, sru 30421-34-2P,  
 5-Phenyl-2-norbornene homopolymer 30421-42-2P, 5-Hydroxymethyl-2-  
 norbornene homopolymer 30604-01-4P, 5-Vinyl-2-norbornene homopolymer  
 30811-49-5P, 5-Cyano-2-norbornene homopolymer 30975-54-3P 34088-86-3P  
 42813-64-9P, Polynorbornene, sru 50966-72-8P 51252-33-6P 51297-15-5P  
 61710-95-0P 63468-63-3P 66183-80-0P 71194-17-7P 74160-66-0P  
 84553-32-2P 112983-75-2P, 5-Ethylidene-2-norbornene homopolymer  
 113388-42-4P 127463-08-5P 136909-71-2P 140448-77-7P,  
 Ethyltetracyclododecene homopolymer 146066-32-2P, 5-Triethoxysilyl-2-  
 norbornene homopolymer 150871-79-7P 167412-52-4P 219863-76-0P  
 247579-45-9P 259142-13-7P 259142-18-2P 406911-89-5P 406911-95-3P  
 406911-96-4P 406911-97-5P 406911-98-6P 406911-99-7P 406912-00-3P  
 475466-65-0P 475466-66-1P 475466-67-2P 475466-68-3P 503298-92-8P  
 565230-93-5P 565230-94-6P 565230-95-7P 565471-36-5P  
 RL: IMF (Industrial manufacture); PREP (Preparation)

(metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylation)

IT 56900-13-1P 215367-19-4P 570432-36-9P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylation)

IT 64-18-6, Formic acid, reactions 64-19-7, Acetic acid, reactions 78-70-6, Linalool 106-95-6, Allylbromide, reactions 131-17-9, Diallyl phthalate 536-74-3, Phenylacetylene 557-40-4, Diallyl ether 871-84-1, 1,7-Octadiyne 917-92-0, tert-Butylacetylene 919-30-2, 3-Triethoxysilylpropylamine 2622-14-2, Tricyclohexylphosphine 3195-24-2, Diethyldiallyl malonate 3710-30-3, 1,7-Octadiene 4162-61-2 5309-50-2, 4,4-Dicarbethoxy-2-methyl-1,6-heptadiene 5680-79-5, Glycine methyl ester hydrochloride 6147-66-6, Diallylamine hydrochloride 132933-28-9  
RL: RCT (Reactant); RACT (Reactant or reagent)

(metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylation)

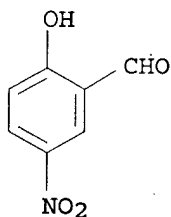
IT 26532-95-6, 11-Tetradecenyl acetate 33956-49-9 50933-33-0 62706-17-6 106024-47-9, 1,5,9-Tetradecatriene 133074-61-0 229314-54-9, 3,8,10-Dodecatrien-1-ol  
RL: TEM (Technical or engineered material use); USES (Uses)

(metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylation)

IT 97-51-8  
RL: RCT (Reactant); RACT (Reactant or reagent)

(ligand precursor; for manufacture of metal carbene complexes for use in olefin metathesis, atom/group transfer radical polymerization, addition reaction and vinylation)

RN 97-51-8 HCAPLUS  
CN Benzaldehyde, 2-hydroxy-5-nitro- (9CI) (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2003:580016 HCAPLUS  
DN 139:292219  
TI Solid Phase Synthesis of 2-Aminoquinazoline-Based Compounds  
AU Srivastava, Gaurav K.; Kesarwani, Amit P.; Grover, Rajesh K.; Roy, Raja; Srinivasan, T.; Kundu, Bijoy  
CS Medicinal Chemistry Division and NMR Lab, Sophisticated Analytical Instrumentation Facility, Central Drug Research Institute, Lucknow, IA, 226001, USA  
SO Journal of Combinatorial Chemistry (2003), 5(6), 769-774  
CODEN: JCCHFF; ISSN: 1520-4766  
PB American Chemical Society  
DT Journal

LA English  
OS CASREACT 139:292219  
AB A versatile method for the solid-phase synthesis of 2-aminoquinazoline-based derivs., 3-substituted-3,4-dihydroquinazolin-2-amines and imidazoquinazolines, has been developed. They were obtained by treating the amino group of polymer-linked amino acids with 2-nitrobenzaldehyde followed by reduction of the nitro group to an amine. Cyclization of the resulting immobilized intermediates with cyanogen bromide followed by acidic/basic cleavage yielded the desired quinazoline-based compds. in high yields and purities.

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))  
Section cross-reference(s): 22, 34, 38

ST solid phase synthesis aminoquinazoline based compd; polymer-linked amino acid reaction nitrobenzaldehyde; dihydroquinazolinamine solid phase synthesis; imidazoquinazoline solid phase synthesis

IT Polymer-supported reagents  
Solid phase synthesis  
(solid-phase synthesis of dihydroquinazolinamines and imidazoquinazolines by treating polymer-linked amino acids with nitrobenzaldehyde followed by reduction)

IT 183599-10-2, Rink Amide AM  
RL: RGT (Reagent); RACT (Reactant or reagent)  
(9052,9051; solid-phase synthesis of dihydroquinazolinamines and imidazoquinazolines by treating polymer-linked amino acids with nitrobenzaldehyde followed by reduction)

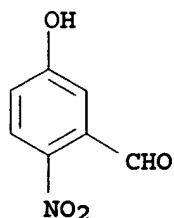
IT 56-12-2,  $\gamma$ -Aminobutyric acid, reactions 60-32-2, 6-Aminohexanoic acid 99-05-8, 3-Aminobenzoic acid 150-13-0, p-Aminobenzoic acid 506-68-3, Cyanogen bromide 552-89-6, 2-Nitrobenzaldehyde 6361-22-4, 6-Chloro-2-nitrobenzaldehyde 20357-25-9, 4,5-Dimethoxy-2-nitrobenzaldehyde 29022-11-5, Fmoc-Gly-OH 35661-39-3 35661-40-6 35661-60-0 35737-15-6, Fmoc-Trp-OH 42454-06-8, 5-Hydroxy-2-nitrobenzaldehyde 53055-05-3, 3-Methoxy-2-nitrobenzaldehyde 68858-20-8 71989-14-5 71989-18-9 71989-23-6 71989-26-9 71989-28-1 71989-33-8 71989-35-0 71989-38-3 132327-80-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(solid-phase synthesis of dihydroquinazolinamines and imidazoquinazolines by treating polymer-linked amino acids with nitrobenzaldehyde followed by reduction)

IT 9003-70-7D, Divinylbenzene-styrene copolymer, amino group-containing  
RL: RGT (Reagent); RACT (Reactant or reagent)  
(solid-phase synthesis of dihydroquinazolinamines and imidazoquinazolines by treating polymer-linked amino acids with nitrobenzaldehyde followed by reduction)

IT 50608-24-7P 109319-91-7P 603997-80-4P 603997-81-5P 603997-82-6P  
603997-83-7P 603997-84-8P 603997-85-9P 603997-86-0P 603997-87-1P  
603997-88-2P 603997-89-3P 603997-90-6P 603997-91-7P 603997-92-8P  
603997-93-9P 603997-94-0P 603997-95-1P 603997-96-2P 603997-97-3P  
603997-98-4P 603997-99-5P 603998-00-1P 603998-01-2P 603998-03-4P  
604806-60-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(solid-phase synthesis of dihydroquinazolinamines and imidazoquinazolines by treating polymer-linked amino acids with nitrobenzaldehyde followed by reduction)

IT 42454-06-8, 5-Hydroxy-2-nitrobenzaldehyde  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(solid-phase synthesis of dihydroquinazolinamines and imidazoquinazolines by treating polymer-linked amino acids with nitrobenzaldehyde followed by reduction)

RN 42454-06-8 HCAPLUS  
CN Benzaldehyde, 5-hydroxy-2-nitro- (7CI, 9CI) (CA INDEX NAME)



RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:44109 HCAPLUS

DN 138:56413

TI Preparations of self-supported nickel-based post-metallocene  
olefin polymerization catalysts

IN Jin, Guoxin; Zhang, Dao

PA Changchun Inst. of Applied Chemistry, Chinese Academy of Sciences, Peop.  
Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 20 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1328879	A	20020102	CN 2001-129548	20010626
	CN 1114497	B	20030716		
PRAI	CN 2001-129548		20010626		

AB The title catalysts contain two component: (A) a Ni-complex containing salicylaldehyde ligand, and (B) a cocatalyst selected from nickel dicyclooctadiene and B(C<sub>6</sub>F<sub>5</sub>)<sub>3</sub>. Typical examples were prepared by reacting a 2-hydroxybenzaldehyde derivative (preps. given) with a vinyl-containing aniline derivative (preps. given) to give a salicylaldehyde ligand (showing mol. formula with no structure data), then reacting this ligand with trans-[NiPhCl(PPh<sub>3</sub>)<sub>2</sub>] to give an A (showing mol. formula with no structure data), which was used for ethylene polymerization without or with B(C<sub>6</sub>F<sub>5</sub>)<sub>3</sub>, showing activity (0.5-2.1) × 10<sup>5</sup> g-PE/mol Ni·h.

IC ICM B01J031-22

ICS B01J037-00; C08F004-80

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 29, 67

ST olefin polymerization nickel based salicylaldehyde liganded catalyst prepn

IT Transition metal complexes

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);  
USES (Uses)

(imine; in preps. of salicylaldehyde ligand for self-supported  
nickel-based post-metallocene catalysts)

IT Polymerization catalysts

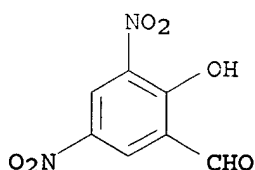
(in preps. of salicylaldehyde ligand for self-supported  
nickel-based post-metallocene catalysts)

IT Group VIII elements

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);  
USES (Uses)

(nickel complexes; in preps. of salicylaldehyde ligand for self-  
supported nickel-based post-metallocene catalysts)

- IT Imines  
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)  
(transition metal complexes; in preps. of salicylaldehyde ligand for self-supported nickel-based post-metallocene catalysts)
- IT 1109-15-5, Tri(perfluorophenyl)borane  
RL: CAT (Catalyst use); USES (Uses)  
(cocatalyst; self-supported nickel-based post-metallocene catalysts containing bis(salicylaldehyde) ligand for olefin polymerization)
- IT 1295-35-8, Nickel dicyclooctadiene  
RL: CAT (Catalyst use); USES (Uses)  
(cocatalyst; self-supported nickel-based post-metallocene catalysts containing salicylaldehyde ligand for olefin polymerization)
- IT 2460-59-5P, 3,5-Dinitro-2-hydroxybenzaldehyde 14562-10-8P, 3-Phenyl-2-hydroxybenzaldehyde 35781-37-4P, 3-Amino-4-methylstyrene 123013-13-8P, 5-Methoxy-3-tert-butyl-2-hydroxybenzaldehyde 367281-62-7P, 4-Allyl-2,6-diisopropylaniline  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(in preps. of salicylaldehyde ligand for self-supported nickel-based post-metallocene catalysts)
- IT 33571-43-6, trans-Chlorophenylbis(triphenylphosphine)nickel  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(in preps. of salicylaldehyde ligand for self-supported nickel-based post-metallocene catalysts)
- IT 9002-88-4P, Polyethylene  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(preparation using self-supported nickel-based post-metallocene catalysts containing salicylaldehyde ligand)
- IT 2460-59-5P, 3,5-Dinitro-2-hydroxybenzaldehyde  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(in preps. of salicylaldehyde ligand for self-supported nickel-based post-metallocene catalysts)
- RN 2460-59-5 HCAPLUS  
CN Benzaldehyde, 2-hydroxy-3,5-dinitro- (9CI) (CA INDEX NAME)



- L91 ANSWER 9 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2002:696023 HCAPLUS  
DN 137:216473  
TI Supports for solid-phase reaction under acidic conditions and under conditions where sulfoxide groups are reduced and novel compounds for their manufacture  
IN Handa, Hiroshi; Takahashi, Takashi; Ohno, Hiroshi; Kawamura, Kuniaki; Ohtake, Atsushi  
PA Japan Represented by President of Tokyo Institute of Technology, Japan; Toray Industries, Inc.  
SO PCT Int. Appl., 30 pp.  
CODEN: PIXXD2  
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002070567	A1	20020912	WO 2002-JP2108	20020307
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	JP 2001-64013	A	20010307		
OS	MARPAT 137:216473				
AB	The compds. are of R1AOXR2 [R1 = solid support; A = (CH2)n, CH2NHCO(CH2)n, CH2O(CH2)n, CONH(CH2)n groups; n = 1-8; X = O-linking benzene ring bearing R2 group and other substituents, with a proviso; R2 = CR3R4R5 group; R3, R4 = H, C1-8 alkyl, aryl, aralkyl; R5 = halogen, SH, SP, OP, NH2, NHP; amino group; P = protective groups]. An example of the compds. is 4-hydroxymethyl-3-nitrophenoxymethylpolystyrene (I). Thus, dispersing hydroxymethylpolystyrene 1.01 with 4-hydroxy-3-nitrobenzaldehyde 0.337, and Ph3P 0.282 g in 10 mL THF, adding 445 µL a 40% PhMe solution of di-Et azodicarboxylate and mixing for 2 h gave a 4-formyl-2-nitrophenoxymethyl polystyrene which was reduced with NaBH4 to give I.				
IC	ICM C08F008-00 ICS C08G085-00; C08G081-02; C07C039-27; C07C047-55; C07C205-19; C07C205-44; C07D489-02; C07D491-16				
CC	21-2 (General Organic Chemistry)				
	Section cross-reference(s): 27, 38				
ST	solid phase reaction polystyrene support linking compd manuf				
IT	Linking agents Solid phase synthesis (supports for solid-phase reaction under acidic conditions and under conditions where sulfoxide groups are reduced and novel compds. for manufacture)				
IT	100-39-0, Benzyl bromide 100-63-0, Phenylhydrazine 155512-37-1 RL: RCT (Reactant); RACT (Reactant or reagent) (reactant; supports for solid-phase reaction under acidic conditions and under conditions where sulfoxide groups are reduced and novel compds. for manufacture)				
IT	16590-41-3, Naltrexone RL: RCT (Reactant); RACT (Reactant or reagent) (solid phase reaction of; supports for solid-phase reaction under acidic conditions and under conditions where sulfoxide groups are reduced and novel compds. for manufacture)				
IT	111555-53-4P, Naltrindole RL: IMF (Industrial manufacture); PREP (Preparation) (supports for solid-phase reaction under acidic conditions and under conditions where sulfoxide groups are reduced and novel compds. for manufacture)				
IT	2973-77-5DP, 3,5-Dibromo-4-hydroxybenzaldehyde, reaction products with hydroxy(m)ethylated polystyrene, reduction products 2973-78-6DP, 3-Bromo-4-hydroxybenzaldehyde, reaction products with hydroxy(m)ethylated polystyrene, reduction products 3011-34-5DP, 4-Hydroxy-3-nitrobenzaldehyde, reaction products with hydroxy(m)ethylated polystyrene, reduction products 9003-53-6DP, Polystyrene, hydroxy(m)ethylated, reaction				

products with linking agents

RL: IMF (Industrial manufacture); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)

(supports for solid-phase reaction under acidic conditions and under conditions where sulfoxide groups are reduced and novel compds. for manufacture)

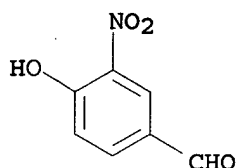
IT 3011-34-5DP, 4-Hydroxy-3-nitrobenzaldehyde, reaction products with hydroxy(m)ethylated polystyrene, reduction products

RL: IMF (Industrial manufacture); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)

(supports for solid-phase reaction under acidic conditions and under conditions where sulfoxide groups are reduced and novel compds. for manufacture)

RN 3011-34-5 HCAPLUS

CN Benzaldehyde, 4-hydroxy-3-nitro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:229228 HCAPLUS

DN 134:367109

TI Tag-Reporter Strategy for Facile Oligosaccharide Synthesis on Polymer Support

AU Ando, Hiromune; Manabe, Shino; Nakahara, Yoshiaki; Ito, Yukishige

CS RIKEN (The Institute of Physical and Chemical Research) and CREST Japan Science and Technology Corporation (JST), Wako-shi Saitama, 351-0198, Japan

SO Journal of the American Chemical Society (2001), 123(16), 3848-3849  
CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

OS CASREACT 134:367109

AB We report a novel technol. for monitor-able, high-yielding PEG polymer support oligosaccharide synthesis based on the "tag-reporter" strategy. The chain elongation process (glycosidation) and chemoselective deprotection can be monitored by MALDI- mass spectroscopy and a coloring reaction, resp.

CC 33-7 (Carbohydrates)

Section cross-reference(s): 35

ST aminodeoxy oligosaccharide synthesis glycosidation coupling

polyethyleneglycol polymer support

IT Coupling reaction

Glycosylation

(tag-reporter strategy for facile oligosaccharide synthesis on polymer support)

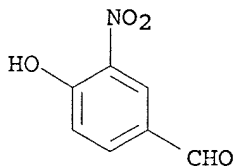
IT Oligosaccharides, preparation

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(tag-reporter strategy for facile oligosaccharide synthesis on polymer



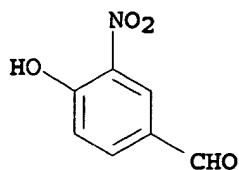
support)  
IT 3011-34-5 5292-43-3, tert-Butyl bromoacetate 9004-74-4,  
Poly(ethylene)glycol monomethyl ether 138906-42-0 182923-79-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(tag-reporter strategy for facile oligosaccharide synthesis on polymer support)  
IT 125872-98-2P 339587-96-1P 339587-97-2P 339587-98-3P 339587-99-4P  
339588-00-0P 339588-01-1P 339588-02-2P 339588-03-3P 339588-04-4P  
339588-05-5P 339588-06-6P 339588-07-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(tag-reporter strategy for facile oligosaccharide synthesis on polymer support)  
IT 339588-08-8P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(tag-reporter strategy for facile oligosaccharide synthesis on polymer support)  
IT 3011-34-5  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(tag-reporter strategy for facile oligosaccharide synthesis on polymer support)  
RN 3011-34-5 HCAPLUS  
CN Benzaldehyde, 4-hydroxy-3-nitro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 2000:700722 HCAPLUS  
DN 134:5100  
TI Novel nitro Wang type linker for polymer support oligosaccharide synthesis; polymer supported acceptor  
AU Manabe, Shino; Nakahara, Yoshiaki; Ito, Yukishige  
CS RIKEN (The Institute of Physical and Chemical Research) Wako, Saitama, 351-0198, Japan  
SO Synlett (2000), (9), 1241-1244  
CODEN: SYNLES; ISSN: 0936-5214  
PB Georg Thieme Verlag  
DT Journal  
LA English  
OS CASREACT 134:5100  
AB A novel linker designed for polymer support oligosaccharide synthesis is described. The nitro group carrying Wang resin type linker was stable under Lewis acidic glycosylation conditions. Selective reduction of the nitro group under the homogenous conditions was accompanied by spontaneous cyclization to release the oligosaccharides from polymer.  
CC 33-7 (Carbohydrates)  
Section cross-reference(s): 38  
ST solid phase oligosaccharide prepn glycosylation selective redn cyclization; polymer support oligosaccharide prepn glycosylation selective redn cyclization

- IT Reduction  
(chemoselective; oligosaccharide preparation via a selective reduction, cyclization and glycosylation using a nitro Wang type linker as a polymer support)
- IT Cyclization  
Glycosylation  
Solid phase synthesis  
(oligosaccharide preparation via a selective reduction, cyclization and glycosylation using a nitro Wang type linker as a polymer support)
- IT Polyoxyalkylenes, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(oligosaccharide preparation via a selective reduction, cyclization and glycosylation using a nitro Wang type linker as a polymer support)
- IT Oligosaccharides, preparation  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(oligosaccharide preparation via a selective reduction, cyclization and glycosylation using a nitro Wang type linker as a polymer support)
- IT 96-32-2, Methyl-bromoacetate 3011-34-5, 4-Hydroxy-3-nitrobenzaldehyde 5292-43-3, tert-Butyl bromoacetate 25322-68-3, PEG 25952-53-8 110426-02-3 124684-91-9 129163-12-8 208047-71-6 308815-90-9 308815-94-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(oligosaccharide preparation via a selective reduction, cyclization and glycosylation using a nitro Wang type linker as a polymer support)
- IT 308815-81-8P 308815-82-9P 308815-83-0P 308815-84-1DP, nitro Wang resin type linker polymer support 308815-85-2DP, nitro Wang resin type linker polymer support 308815-86-3P 308815-87-4DP, nitro Wang resin type linker polymer support 308815-87-4P 308815-88-5P 308815-91-0DP, nitro Wang resin type linker polymer support 308815-92-1DP, nitro Wang resin type linker polymer support 308815-97-6P 308815-98-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(oligosaccharide preparation via a selective reduction, cyclization and glycosylation using a nitro Wang type linker as a polymer support)
- IT 84926-76-1P 308815-89-6P 308815-93-2P 308815-95-4P 308815-96-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(oligosaccharide preparation via a selective reduction, cyclization and glycosylation using a nitro Wang type linker as a polymer support)
- IT 3011-34-5, 4-Hydroxy-3-nitrobenzaldehyde  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(oligosaccharide preparation via a selective reduction, cyclization and glycosylation using a nitro Wang type linker as a polymer support)
- RN 3011-34-5 HCAPLUS  
CN Benzaldehyde, 4-hydroxy-3-nitro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 12 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:350702 HCAPLUS

DN 130:352814

TI Functionalized resin for the synthesis of amides and peptides

IN Manfre, Franco; Vanasse, Benoit J.; Labaudiniere, Richard F.; Morton, George C.

PA Rhone-Poulenc Rorer Pharmaceuticals Inc., USA

SO PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9925752	A1	19990527	WO 1998-US24509	19981116
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9915890	A1	19990607	AU 1999-15890	19981116
ZA 9810536	A	19991202	ZA 1998-10536	19981118
US 6127515	A	20001003	US 1999-316671	19990521
PRAI US 1997-65648P	P	19971118		
WO 1998-US24509	W	19981116		

AB A functionalized amino resin SNRCOAY (where S = solid support; R = H or alkyl; A = C<sub>6</sub>H<sub>4</sub>CO-p-C<sub>6</sub>H<sub>3</sub>NO<sub>2</sub> or 1,3-pyridyl; Y = OH or OCOR<sub>1</sub>; and R<sub>1</sub> = aliphatic or aromatic) is useful for the solid phase synthesis of amides, peptides and hydroxamic acids. Aminomethylated solid support resin is treated with 2-(4-hydroxy-3-nitrobenzoyl)benzoic acid forming a benzamide derivative

IC ICM C08G073-00

ICS C08G069-26; A61K038-00; C07K005-00; C07K007-00; C07K016-00; C07K017-00

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 25, 34

ST hydroxynitrobenzoylbenzamide resin solid support; amide synthesis polymer supported reagent; peptide synthesis polymer supported reagent

IT Amides, preparation

Peptides, preparation

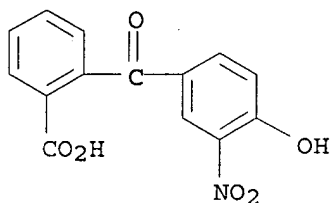
RL: IMF (Industrial manufacture); PREP (Preparation)

(functionalized resin for solid phase synthesis)

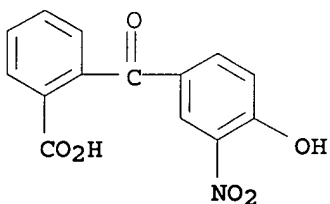
IT Polymer-supported reagents

(hydroxynitrobenzoylbenzamide resin for synthesis of amides and

peptides)  
IT 1878-68-8DP, 4-Bromophenylacetic acid, reaction products with  
hydroxynitrobenzoylbenzamide resin 43046-97-5DP, reaction  
products with aminomethylated resin  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(functionalized resin for synthesis of amides and peptides)  
IT 43046-97-5P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(functionalized resin for synthesis of amides and peptides)  
IT 85-54-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction with sulfuric acid; functionalized resin for synthesis of  
amides and peptides)  
IT 43046-97-5DP, reaction products with aminomethylated resin  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(functionalized resin for synthesis of amides and peptides)  
RN 43046-97-5 HCAPLUS  
CN Benzoic acid, 2-(4-hydroxy-3-nitrobenzoyl)- (9CI) (CA INDEX NAME)



IT 43046-97-5P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(functionalized resin for synthesis of amides and peptides)  
RN 43046-97-5 HCAPLUS  
CN Benzoic acid, 2-(4-hydroxy-3-nitrobenzoyl)- (9CI) (CA INDEX NAME)

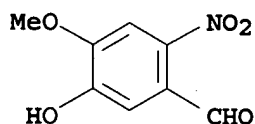


RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L91 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1996:337906 HCAPLUS  
DN 125:11810  
TI Preparation of polymer-supported nitrobenzene derivatives as  
intermediates for 18F-labeled isotope indicators  
IN Kadowaki, Takuya; Yamazaki, Shigeki; Oosaki, Katsuhiko; Mizuno, Kenichiro;  
Kato, Masao; Kataoka, Kazunori  
PA Nippon Kokan KK, Japan  
SO Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08067714	A2	19960312	JP 1994-206656	19940831
	JP 3134035	B2	20010213		
PRAI	JP 1994-206656		19940831		
AB	Isovanillin is nitrated by using a common procedure to give 2-methoxy-4-nitro-5-formylphenol which is then attached to a divinylbenzene-crosslinked chloromethylstyrene-styrene copolymer support through ether linkages. The polymer-supported compound is a useful precursor for obtaining 18F-labeled isotope indicators by replacing nitro groups with 18F-. Synthesis of 18F-labeled L-dopa from this intermediate was included.				
IC	ICM C08F012-12				
	ICS C07C205-44; C08F008-00				
ICA	C07C227-22; C07C229-06				
CC	35-8 (Chemistry of Synthetic High Polymers) Section cross-reference(s): 8, 9, 25				
ST	isovanillin nitro polymer support; styrene polymer crosslinked nitro isovanillin; isotope indicator synthesis intermediate; fluorine isotope indicator synthesis; dopa fluorine isotope labeled				
IT	Isotope indicators Polymer-supported reagents (preparation of polymer-supported nitrobenzene derivs. as intermediates for 18F-labeled isotope indicators)				
IT	55844-94-5DP, Chloromethylstyrene-divinylbenzene-styrene copolymer, reaction products with 2-methoxy-4-nitro-5-formylphenol 58749-47-6DP, reaction products with crosslinked styrene-chloromethylstyrene copolymers RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of polymer-supported nitrobenzene derivs. as intermediates for 18F-labeled isotope indicators)				
IT	621-59-0, Isovanillin 7697-37-2, Nitric acid, reactions RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of polymer-supported nitrobenzene derivs. as intermediates for 18F-labeled isotope indicators)				
IT	92812-82-3P, Fluorodopa f 18 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of polymer-supported nitrobenzene derivs. as intermediates for 18F-labeled isotope indicators)				
IT	58749-47-6DP, reaction products with crosslinked styrene-chloromethylstyrene copolymers RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of polymer-supported nitrobenzene derivs. as intermediates for 18F-labeled isotope indicators)				
RN	58749-47-6 HCAPLUS				
CN	Benzaldehyde, 5-hydroxy-4-methoxy-2-nitro- (9CI) (CA INDEX NAME)				



L91 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN  
AN 1993:640711 HCAPLUS  
DN 119:240711  
TI Stabilization of reactive species within polystyrene divinylbenzene polymer networks  
AU Bourque, A. J.; Krull, I. S.; Feibush, B.  
CS Dep. Chem., Northeast. Univ., Boston, MA, 02115, USA  
SO Analytical Chemistry (1993), 65(21), 2983-9  
CODEN: ANCHAM; ISSN: 0003-2700  
DT Journal  
LA English  
AB The effect of crosslinking, surface area, and porous nature of modified polystyrene-divinylbenzene (STY-DVB) reagents has been investigated. The supports were prepared via two techniques and modified to contain various chemical functionalities. These reagents were used in an online reactor for automated derivatization of amines in HPLC. The reproducibility of the response vs the phys. nature of the porous support and the chemical functionality was determined. The ability to stabilize highly reactive acylating reagents toward high concns. of aqueous base was found to be a complex interaction of pore size distribution, percent crosslinking, surface area, and absolute loading of the anal. reagent on the porous support.  
CC 80-3 (Organic Analytical Chemistry)  
Section cross-reference(s): 38  
ST modified styrene divinylbenzene copolymer derivatization reagent; HPLC amine polymeric online acylation reagent; liq chromatog amine polymeric acylation reagent  
IT Amines, analysis  
RL: ANST (Analytical study)  
(chiral recognition of, by HPLC using dinitrophenylcarbamate modified polystyrene for online derivatization)  
IT Reactors  
(containing dinitrobenzoate or dinitrophenylcarbamate or fluorenylacetate modified polystyrene for online derivatization of amines in HPLC anal.)  
IT Polymer-supported reagents  
(dinitrobenzoate or dinitrophenylcarbamate or fluorenylacetate modified polystyrene as, for online acylation of amines in HPLC anal.)  
IT Pore  
Surface area  
Swelling, physical  
(of dinitrobenzoate or dinitrophenylcarbamate or fluorenylacetate modified polystyrene as online acylation reagents for amines)  
IT Resolution  
(chromatog., of amines using dinitrobenzoate or dinitrophenylcarbamate or fluorenylacetate modified polystyrene as online acylation reagents by HPLC)  
IT Chromatography, column and liquid  
(high-performance, for chiral recognition of amines using dinitrobenzoate or dinitrophenylcarbamate or fluorenylacetate modified polystyrene as online derivatization reagents)  
IT 99-34-3DP, 3,5-Dinitrobenzoic acid, reaction. product with polystyrene and nitrobenzophenol or hydroxybenzotriazole 2592-95-2DP, 1-Hydroxybenzotriazole, reaction. product with polystyrene and fluorenylacetate or nitrophenylacyl derivs. 5464-98-2DP, reaction. product with polystyrene and fluorenylacetate or nitrophenylacyl derivs. 6284-80-6DP, 9-Fluorenylacetic acid, reaction. product with polystyrene and nitrobenzophenol or hydroxybenzotriazole 9003-70-7DP, Divinylbenzene-styrene copolymer, containing fluoreneacetyl group or dinitrophenylacyl derivs. 9052-95-3DP, Divinylbenzene-ethylstyrene-styrene copolymer, containing fluoreneacetyl group or dinitrophenylacyl

derivs. 133214-06-9DP, 3,5-Dinitrophenylcarbamic acid, reaction. product with polystyrene and nitrobenzophenol or hydroxybenzotriazole

RL: ANST (Analytical study); PREP (Preparation)

(preparation and properties and use of, as online derivatization reagents for amines)

IT 999-97-3DP, Hexamethyldisilazane, reaction. product with silica 7631-86-9DP, Silica, reaction. product with hexamethyldisilazane

RL: SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)

(preparation and use of, in templated polymerization of styrene and divinylbenzene)

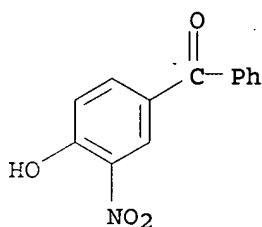
IT 5464-98-2DP, reaction. product with polystyrene and fluorenylacetate or nitrophenylacetyl derivs.

RL: ANST (Analytical study); PREP (Preparation)

(preparation and properties and use of, as online derivatization reagents for amines)

RN 5464-98-2 HCAPLUS

CN: Methanone, (4-hydroxy-3-nitrophenyl)phenyl- (9CI) (CA INDEX NAME)



L91 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1979:421028 HCAPLUS

DN 91:21028

TI Long-chain and other substituted 2-nitrophenyl active ester derivatives of some amino acids

AU Stewart, Frederick H. C.

CS Div. Protein Chem., CSIRO, Parkville, Australia

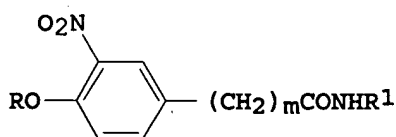
SO Australian Journal of Chemistry (1979), 32(2), 405-10

CODEN: AJCHAS; ISSN: 0004-9425

DT Journal

LA English

GI

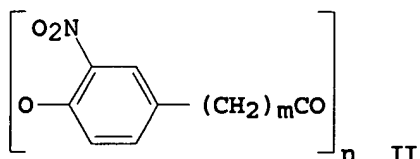


I, R=H

III, R=Z-Ala

IV, R=Z-Pro

V, R=Z-Gly-Pro-Ala



AB 2-Nitrophenols I [m = 0, R1 = H, dodecyl; m = 1, R1 = Me, Bu, (+)-CHMePh, (-)-CHMePh, adamantyl, dodecyl, hexadecyl; m = 2, R1 = Me dodecyl] were prepared by amidating the active polyester II with H2NR1. Alanine active esters III [Z = PhCH2O2C, m = 1, R1 = Me, (+)-CHMePh, (-)-CHMePh, adamantyl, dodecyl, hexadecyl] were prepared by esterifying Z-Ala-OH with II by dicyclohexylcarbodiimide. Proline active ester IV (m = 1, R1 = dodecyl) was also prepared III (m = 1, R1 = dodecyl) was Z-deblocked and coupled with Z-Gly-Pro-OH by the ClCO2CH2CHMe2 mixed anhydride method to give peptide V (m = 1, R1 = dodecyl).

CC 34-2 (Synthesis of Amino Acids, Peptides, and Proteins)

ST amino acid ester alkylcarboxamidomethyl; hydroxynitrophenyl carboxylate polyester amidation; active ester nitrophenyl alkylcarboxamidomethyl

IT Amino acids, esters  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(alkylcarbamoylemethyl)nitrophenyl esters, preparation of, by esterification with nitrophenol derivative)

IT Amino acids, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(esterification of, with (alkylcarbamoylemethyl)nitrophenols)

IT Esterification  
(of amino acids with (alkylcarbamoylemethyl)nitrophenols)

IT Esters, preparation  
(active, of amino acids with (alkylcarbamoylemethyl)nitrophenols)

IT 74-89-5, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(amidation by, of (hydroxynitrophenyl)carboxylic acid polyesters)

IT 69638-45-5 69638-46-6 69638-47-7 69639-42-5 69639-45-8  
69639-46-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(amidation of)

IT 69638-48-8 69639-43-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(amidation of, by benzylamine)

IT 1142-20-7 1148-11-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(esterification of, with (alkylcarboxamidomethyl)nitrophenol)

IT 1160-54-9  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(peptide coupling of, with alanine (dodecylcarbamoylemethyl)nitrophenyl ester)

IT 70382-19-3P 70382-20-6P 70382-21-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and deblocking of)

IT 70382-04-6P 70382-06-8P 70382-07-9P 70382-08-0P 70382-10-4P  
70382-12-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and esterification of, with alanine derivative)

IT 70382-00-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and esterification of, with alanine derivs.)

IT 70382-22-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and neutralization of)

IT 70429-32-2P



RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and peptide coupling of, with dipeptide derivative)

IT 88-75-5DP, 4-(alkylcarbamoylmethyl) derivs., esters with amino acids

13156-81-5P 69812-61-9P 70382-03-5P 70382-05-7P 70382-09-1P

70382-11-5P 70382-14-8P 70382-15-9P 70382-16-0P 70382-17-1P

70382-18-2P 70382-23-9P 70382-24-0P 70429-33-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

IT 69638-45-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(amidation of)

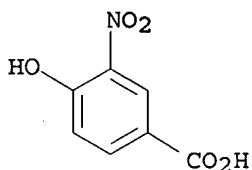
RN 69638-45-5 HCAPLUS

CN Benzoic acid, 4-hydroxy-3-nitro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 616-82-0

CMF C7 H5 N O5



IT 69638-48-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(amidation of, by benzylamine)

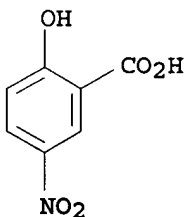
RN 69638-48-8 HCAPLUS

CN Benzoic acid, 2-hydroxy-5-nitro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 96-97-9

CMF C7 H5 N O5



L91 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1979:104557 HCAPLUS

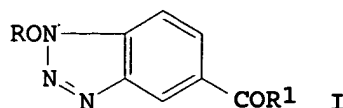
DN 90:104557

TI Soluble polymers in organic synthesis. I. Preparation of polymer reagents using polyethylene glycol with terminal amino groups as polymeric component

AU Mutter, Manfred

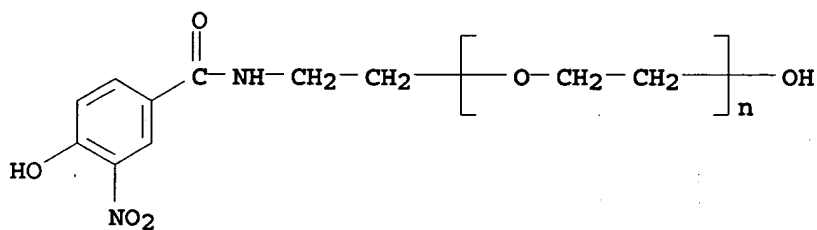
CS Inst. Org. Chem., Univ. Tuebingen, Tuebingen, Fed. Rep. Ger.

SO Tetrahedron Letters (1978), (31), 2839-42  
 CODEN: TELEAY; ISSN: 0040-4039  
 DT Journal  
 LA English  
 GI

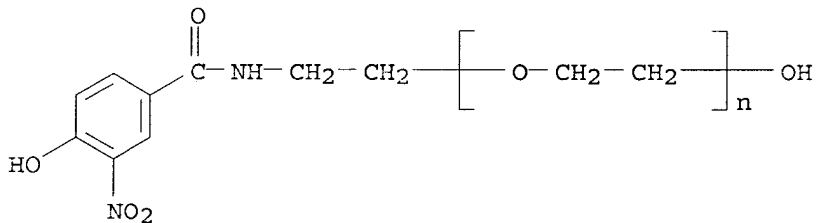


- AB H<sub>2</sub>N[(CH<sub>2</sub>)<sub>20</sub>]<sub>n</sub>(CH<sub>2</sub>)<sub>2</sub>NH<sub>2</sub> (PEG-NH<sub>2</sub>) [24991-53-5], prepared by sequential tosylation and amination of polyethylene glycol [25322-68-3], reacted with 4,3-(HO)(O<sub>2</sub>N)C<sub>6</sub>H<sub>3</sub>CO<sub>2</sub>H [616-82-0] and acid I (R = H, R<sub>1</sub> = OH) [69205-87-4] in the presence of dicyclohexylcarbodiimide to give 4,3-(HO)(O<sub>2</sub>N)C<sub>6</sub>H<sub>3</sub>CONH-PEG (II) [69221-79-0] and I (R = H, R<sub>1</sub> = NH-PEG) (III) [69221-80-3], resp. PEG-bound active esters were obtained by reaction of II and III with anhydrides of N-protected amino acids. PEG-NH<sub>2</sub> reacted successively with Me<sub>2</sub>CHNCO [1795-48-8] (CH<sub>2</sub>Cl<sub>2</sub>, 25°, 2 h) and 4-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>Cl (Et<sub>3</sub>N, CH<sub>2</sub>Cl<sub>2</sub>, reflux, 4 h) to give PEG-N:C:NCHMe<sub>2</sub> [69221-81-4].
- CC 35-6 (Synthetic High Polymers)  
 Section cross-reference(s): 34
- ST polyethylene glycol amination; aminopolyethylene glycol amidation hydroxybenzoate; benzoate hydroxy amidation aminopolyethylene glycol; benzotriazolecarboxylate amidation aminopolyethylene glycol; amino acid ester polyethylene glycol
- IT Amidation  
 (of aryl acids, by diaminopolyethylene glycol)
- IT Aminoacylation  
 (of polyethylene glycol derivs., by amino acid anhydrides)
- IT Amination  
 (of tosylated polyethylene glycol)
- IT Amino acids, esters  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (polyethylene glycol-bound active esters, preparation of)
- IT Sulfonylation  
 (tosylation, of polyethylene glycol)
- IT 616-82-0 1795-48-8 69205-87-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (coupling of, with diaminopolyethylene glycol)
- IT 35164-96-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and hydrazinolysis of)
- IT 10068-54-9DP, reaction products with polyethylene glycol derivs. 24991-53-5DP, reaction products with hydroxynitrobenzoic acid and hydroxybenzotriazolecarboxylic acid 24991-53-5P 33294-55-2DP, reaction products with polyethylene glycol derivs. 51499-90-2DP, reaction products with polyethylene glycol derivs. 56676-12-1DP, reaction products with polyethylene glycol derivs. 69221-79-0DP, reaction products with amino acid anhydrides 69221-79-0P 69221-80-3DP, reaction products with amino acid anhydrides 69221-80-3P 69221-81-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)
- IT 25322-68-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)

(tosylation of, in amino acid active ester preparation)  
IT 69221-79-0DP, reaction products with amino acid anhydrides  
69221-79-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 69221-79-0 HCAPLUS  
CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[2-[(4-hydroxy-3-nitrobenzoyl)amino]ethyl]- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)



RN 69221-79-0 HCAPLUS  
CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[2-[(4-hydroxy-3-nitrobenzoyl)amino]ethyl]- $\omega$ -hydroxy- (9CI) (CA INDEX NAME)



=>